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REMARKS / ARGUMENTS

Claims 1-4 and 6-10 are pending in this application. By this Amendment, Applicants AMEND claims 1, 6, and 8 and CANCEL claims 5 and 11-24.

Claim 8, line 3 has been amended to provide proper antecedent basis for the "ground *electrode* pattern" recited in line 7 of claim 8 (emphasis added.) Accordingly, Applicants respectfully submit that the scope of claim 8 has not been narrowed by this amendment.

Claims 1-24 were rejected under 35 U.S.C. § 102(e) as being anticipated by Nakashima (U.S. 6,526,270). Claims 5 and 11-24 have been canceled. Applicants respectfully traverse the rejection of claims 1-4 and 6-10.

Claim 1 has been amended to recite:

"An RF module comprising;
a multi-layered substrate having first and second sides;
a base-band IC, a memory IC and an RF-IC, said base-band IC and memory IC being mounted on the first side of said multi-layered substrate, and said RF-IC being mounted on the second side of said multi-layered substrate;
an RF passive component incorporated in said multi-layered substrate;
a wiring pattern incorporated in said multi-layered substrate, said wiring pattern interconnecting said base-band IC and said memory IC; and
a shielding ground electrode pattern interposed between the first side of said multi-layered substrate on which said base-band IC and said memory IC are mounted and the second side of said multi-layered substrate on which said RF-IC is mounted." (Emphasis added.)

The Examiner alleged that Nakashima teaches all of the features recited in Applicants' claim 1, including an RF module (Fig. 1) comprising a multi-layered substrate (e.g. circuit board/portable telephone 50), a base-band IC (IC 2 or IC 55), a memory IC (ROM 11, RAM 10), an RF-IC (3 or 58), a wiring pattern, and an RF passive component.

In contrast to the Examiner's allegations, Nakashima does not teach an "RF module," an "RF-IC," or an "RF passive component" as recited in Applicants' claim 1. And although the Examiner grouped claims 5 and 6 with independent claim 1 in the body of the rejection, absolutely no mention was made in the body of the rejection of the

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features recited in claims 5 and 6, features of which are now incorporated into independent claim 1.

First, contrary to the Examiner's allegations, Nakashima does not teach an "RF module" as recited in Applicants' claim 1. Nakashima specifically discloses, in column 1, lines 6-9, an IrDA (infrared data association) integrated circuit device used in a portable telephone to achieve infrared data communication. Infrared rays are not radio waves because the frequency of infrared rays is not a radio frequency (RF). Note column 4, lines 27-31 and column 6, lines 11-14 of Nakashima disclose that the analog front end (4) emits and senses infrared rays. Therefore, the device of Nakashima neither receives nor transmits data via radio frequency (RF) waves. Accordingly, Nakashima certainly fails to teach or suggest an "RF-IC" or an "RF passive component" as recited in Applicants' claim 1.

The IrDA (3) of Nakashima is not an RF-IC because the IrDA of Nakashima communicates with the personal computer (60) via infrared rays, not via radio frequency (RF) waves. Further, it is noted that the Examiner did not indicate by reference numeral or by column and line number where Nakashima teaches an RF passive component. In fact, Nakashima fails to teach or suggest an "RF passive component" as recited in Applicants' claim 1. Applicants respectfully submit that Nakashima does not teach or suggest an RF module, an RF-IC, or an RF passive component as recited in Applicants' claim 1.

Second, prior art Figure 5 of Nakashima does not disclose an RF module, an RF-IC, or an RF passive component as recited in Applicants' claim 1. Although the background of the invention of Nakashima briefly mentions in column 1, lines 25-27 that a portable phone may communicate by radio waves, no mention is made of an RF module, RF-IC, or RF passive component.

Third, Nakashima does not teach or suggest the features of a "base-band IC and memory IC being mounted on the first side of said multi-layered substrate, and said RF-IC being mounted on the second side of said multi-layered substrate" as recited in Applicants' claim 1. These features were originally recited in claim 5. However, the

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Examiner did not specifically address any of the features of claim 5 in the body of the rejection. A review of the Nakashima reference reveals that Nakashima is completely silent with respect to these features. Furthermore, Nakashima simply could not teach or suggest a memory IC (ROM 11, RAM 10) mounted on a first side of the multi-layered substrate and the alleged RF-IC mounted on a second side of the substrate since the memory IC (ROM 11, RAM 10) are elements of the alleged RF-IC. Thus, it would be impossible to mount the memory IC (ROM 11, RAM 10) on a first side of the multi-layered substrate and the alleged RF-IC on the second side of the multi-layered substrate. Thus, Applicants respectfully submit that Nakashima does not teach or suggest a "base-band IC and memory IC being mounted on the first side of said multilayered substrate, and said RF-IC being mounted on the second side of said multi-layered substrate" as recited in Applicants' claim 1. Furthermore, prior art Figure 5 of Nakashima does not teach or suggest these features.

Additionally, Nakashima does not teach or suggest the feature of a "shielding ground electrode pattern interposed between the first side of said multi-layered substrate on which said base-band IC and said memory IC are mounted and the second side of said multi-layered substrate on which said RF-IC is mounted" as recited in Applicants' claim 1. A similar feature was originally recited in claim 6. However, the Examiner did not specifically address any of the features of claim 6 in the body of the rejection. A review of Nakashima reveals that Nakashima, including prior art Figure 5 of Nakashima, fails to teach or suggest a shielding ground electrode. Applicants respectfully submit that Nakashima, including prior art Figure 5 of Nakashima, fails to teach or suggest "a shielding ground electrode" as recited in Applicants' claim 1.

The Examiner is reminded that a "claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Verdegaal Bros. v. Union Oil Co. of California, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Clearly, for the reasons stated above, Nakashima does not anticipate Applicants' claim 1.

Accordingly, Applicants respectfully request reconsideration and withdrawal of

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the rejection of claim 1 under 35 U.S.C. § 102(e) as being anticipated by Nakashima. Claims 2-4 and 6-10 depend from claim 1 and are therefore allowable for at least the reasons that claim 1 is allowable.

In view of the foregoing amendments and remarks, Applicants respectfully submit that this application is in condition for allowance. Favorable consideration and prompt allowance are solicited.

The Commissioner is authorized to charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-1353.

Respectfully submitted,

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